NOTICE

Warranty registration on this unit is not necessary. The serial number of your instrument has been recorded and placed in our warranty file. The warranty covers all parts and labor performed at our plant. The warranty period is 3 years beginning 10 days after shipment. Misuse or abuse of the equipment will not be covered by warranty.

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1. SPECIFICATIONS

A. FREQUENCY — RESOLUTION

1000 to 9999 Hz	1 Hz
100.0 to 999.9 Hz	.1 Hz
10.00 to 99.99 Hz	.01 Hz

B. Accuracy — Trimming capacitor in the oscillator circuit allows setting to within + / -1PPM at room temperature.

C. Stability — Typically + / -10 PPM 0 to 50c

D. Timing Controls — 100 msec. to 5 seconds variable

E. Output — Variable up to 2.5 volts RMS across a 600ohm load. Output can be reduced by 60 db typically with the level control.

F. Distortion — Less than 3% at full output.

2. CIRCUIT DESCRIPTION

Referring to the schematic, Q1, the oscillator transistor operates in the fundamental mode with the frequency of oscillation determined by Y1, a 7.92 mhz crystal. Trimming capicator C1 allows setting the oscillator to the precise operating frequency.

Q2 and IC1 are used to amplify and isolate the oscillator output. The flip-flop circuit IC2 is used to shape the crystal frequency and divide by four down to 1.98 mHz.

Integrated circuits IC3, IC4, IC5 and IC6 are fractional multipliers such that they will multiply the 1.98 mHz signal by anything from .1000 to .9999, adjustable with the BCD switches to give an output at IC6 of .198 mHz to 1.98 mHz, IC7 is a dual decade circuit which will scale the input by 10 or 100. IC8 is a gating circuit used to select the proper decade from IC7.

The output of IC8 drives the inputs of IC10 and IC11. IC10, IC11, 1 / 6 IC12 and ½ IC9 form an up-down counter which divides the frequency by 198. The outputs of the up-down counters are fed into a ladder network to form a triangle which is the frequency selected by the thumbwheel switches and range switch.

IC13 takes the triangle and feeds a diode sine forming network consisting of D35 and D36. Sine wave purity can be adjusted by R61.

IC14 is an analog switching network used to switch between tone A and tone B. This network is controlled by the sequencer network through IC12 , Q3, and Q4.

IC15 is an amplifier used to drive the audio circuit consisting of Q5, Q6, and Q7.

The sequencer circuits IC16, IC17, IC18, and IC19 derive their time information from a 10 ufd capacitor off pins 6 and 7 and the adjustable resistors on the front panel. The outputs of the sequencer circuits drive the LED displays and the gating circuits, IC8 and IC14.

3. OPERATING INSTRUCTIONS:

A. Turn the on-off switch to on.

B. Set the thumbwheel switches and range switches to the desired output frequency. The range switch effectively moves the indicated thumbwheel setting down by one or two decades as indicated:

RANGE SETTING	OUTPUT FREQUENCY
X1	.1000 to 9999 Hz
X.1	100.0 to 999.9 Hz
X.01	10.00 to 99.99 Hz

C. Set the mode switch to Cont. A (left position) and adjust the A Level for the desired output.

D. Set the mode switch to Cont. B (right position) and adjust the B Level for the desired output.

E. Set the mode switch to Cycle (center position).

F. Set the Cycle switch to A or A & B as desired.

G. Set the A Delay switch on the back panel to on or off as desired. In the off position there is no delay between tones B and A.

H. Set the B Delay switch on the back panel to on or off as desired. In the off position there is no delay between tones A and B. With both delay switches off the generator simply toggles between the A and B tones.

I. It is possible to confuse the sequencer circuits with occasional switching transients. When this happens generally all LEDS are off or possibly two may come on at once. To resume normal operation, press the Clear-Cycle button momentarily. After releasing the Clear button the generator begins its sequence on A Duration.

J. If a single burst or cycle is desired the Clear Switch can be used to achieve this by the following:

1. Set the A DELAY switch on the back panel to the unmarked position. Extreme left as viewed from the back.
2. Press the clear button momentarily. Upon release the sequence will begin on A DURATION and complete one cycle.
3. Repeat step two if desired for another cycle.

K. For systems requiring A durations between .001 and .05 seconds make sure the A Dur. switch on the rear panel is in the proper position.

L. Care should be taken that high voltages are not applied to the output terminals.

4. MAINTENANCE

This instrument has been designed to give years of trouble-free operation. In the event a trouble does occur we recommend you return it to the factory for repair. If it is necessary to make field repairs the following guides should be observed.

A. Remove the two top screws on the back panel and slide the top portion of the case back to remove.

B. Check for obvious faults; broken wires, integrated circuits not completely in sockets, broken or discolored parts, etc.

C. The following guides will help you localize a problem. A good high frequency scope and a high impedance voltmeter will be necessary.

D. After the faulty part has been located remove the screws from the delay switches on the back panel and the printed circuit mounting screws then tilt the P.C. board up to remove and replace the part.

5. TROUBLE SHOOTING PROCEDURE (GENERAL)

A. The trouble can be localized to one of four general categories, sine wave generator, sequencer, analog switching circuit, or power supply.

1. If there is no output on either tone but the LED indicator lamps come on when you switch to continuous A or continuous B the trouble is probably in the sine generator section.
2. If there is output but the sequencer is erratic, misses functions, more than one light on at a time then the trouble is probably in the sequencer section.
3. If the LEDS light and there is output on one tone but not on the other then probably the trouble is in the analog switching network.
4. If nothing happens when you turn the power on then probably the fault is in the power supply section.

B. ALIGNMENT

After troubleshooting and parts replacement, alignment may be necessary to produce the purest sine wave output. Switch settings should be as follows:

MODE SW.- CONT (A)
(A) Thumbwheels 1000
(A) Range X1
(A) Level MAX CW

1. With a scope probe at the junction of R38 R33-R40 adjust R26, R27, R28, R29, R30, R31, R32 in that order, for a triangle waveform with no shingle effect. It may be necessary to repeat these adjustments several times to get the best looking waveform.
2. With a scope probe at IC13 pin 6 adjust R58 for a triangle with no clipping on either side.
3. With a scope probe at IC14 pin 8 adjust R61 for best sine wave.
4. Put a 22 ohm load across the output jacks. With the scope probe on the output adjust R71 for the best sine wave. If some clipping occurs, adjust for symmetry of clip.
5. Remove the 22 ohm load. With a distortion analyzer across the output terminals adjust R61 for lowest distortion.
6. For best performance repeat steps 2 through 5 several times.

BILL OF MATERIALS 2TSG-1

SYMBOL	DESCRIPTION
C1	Trimmer 7-60pf
C2	Mica 39pf
C3	Mica 330pf
C4	Mica 100pf
C5	Ceramic .01mfd
C6	Ceramic .001mfd
C7	C6
C8	Electrolytic 100mfd
C9	Electrolytic 1000 mfd
C10	Tant. 1mfd
C11	Tant. 10mfd
C12	C11
C13	C5
C14	C11
C15	C5
C16	C11
C17	C5
C18	C11
C19	C5
C20	C6
C21	C10
C22	C6
C23	C6
C24	Electrolytic 470mfd
C25	C24
C26	C24
C27	C6
C28	C10
C29	C10
C30	C10
C31	.1uf Ceramic
C32	C31
C33	C10
D1-D38	Diode IN914
D39-D44	Diode IN4001
D45-D48	LED
D49-D52	Diode IN914
F1	Fuse ¼ AMP
IC1	MC14012
IC2	SCL4027
IC3	MC14527
IC4	IC3
IC5	IC3
IC6	IC3

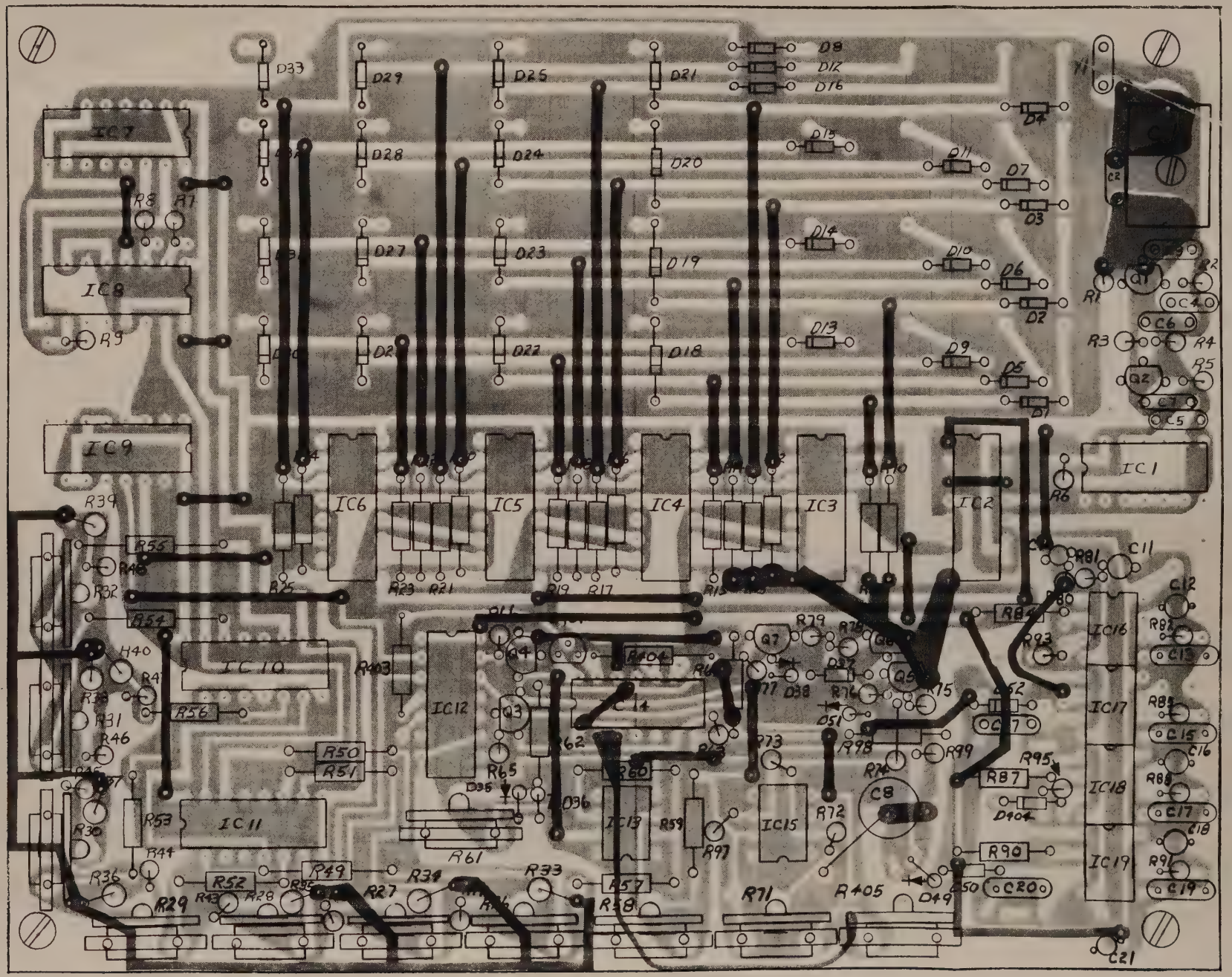
SYMBOL	DESCRIPTION
IC7	MC14518
IC8	MC14506
IC9	IC2
IC10	MC14510
IC11	IC10
IC12	MC14049
IC13	LM307
IC14	MC14016
IC15	IC13
IC16	NE555
IC17	IC16
IC18	IC16
IC19	IC16
IC20	MC7905
IC21	MC7805
IC22	MC7812
J1	Binding Post, Red
J2	Binding Post, Black
Q1	Transistor, MPS3563
Q2	Q1
Q3	Transistor, MPS3638
Q4	Q3
Q5	Transistor, 2N3904
Q6	Transistor, MPS6562
Q7	Transistor, MPS6560
R1	Resistor 100K ¼w 10%
R2	Resistor 3.3K ¼w 10%
R3	Resistor 33K ¼w 10%
R4	R3
R5	Resistor 3.9K ¼w 10%
R6	Resistor .39M ¼w 10%
R7-R25	R3
R26-R32	Resistor Variable 1K
R33	Resistor 1.0K 1%
R34	Resistor 1.96K 1%
R35	Resistor 4.02K 1%
R36	Resistor 8.06K 1%
R37	Resistor 16.2K 1%
R38	Resistor 33.0K 1%
R39	Resistor 61.9K 1%
R40	Resistor 133K 1%
R41-R48	Resistor 220ohm ¼w 10%
R49-R55	R2
R56	R5

BILL OF MATERIALS 2TSG-1 (Cont.)

SYMBOL	DESCRIPTION
R57	Resistor 1.0K ¼w 5%
R58	Resistor Variable 5K
R59	Resistor 150K ¼w 10%
R60	R3
R61	R58
R62	Resistor 15K ¼w 10%
R63	Resistor 47K ¼w 10%
R64	R63
R65	Resistor 10K ¼w 10%
R66	R65
R67	Resistor Variable 10K
R68	R67
R69	R1
R70	R1
R71	R58
R72	R62
R73	R59
R74	Resistor 6.8K ¼w 10%
R75	R74
R76	R3
R77	Resistor 1.5K ¼w 10%
R78	Resistor 10 ohms ¼w 10%
R79	R78
R80	R62
R81	R62
R82	R65
R83	Resistor Variable 500K
R84	R62
R85	R65
R86	R83
R87	R62
R88	R65
R89	R83
R90	R62
R91	R65
R92	R83
R93-R96	Resistor 680 ohms ¼w 10%
R97	R62
R98	R62
R99	R62

SYMBOL	DESCRIPTION
S1	BCD Switch
S2	S1
S3	2pole 3pos slide
S4	S3
S5	S3
S6	S5
S7	S5
S8	S3
S9	S5
S10	Push Switch
S11	S5
T1	Transformer
Y1	Crystal 7.92 mHz

For parts replacement order by model number symbol and description.
Example 2TSG-1 (R83) resistor, variable 500K.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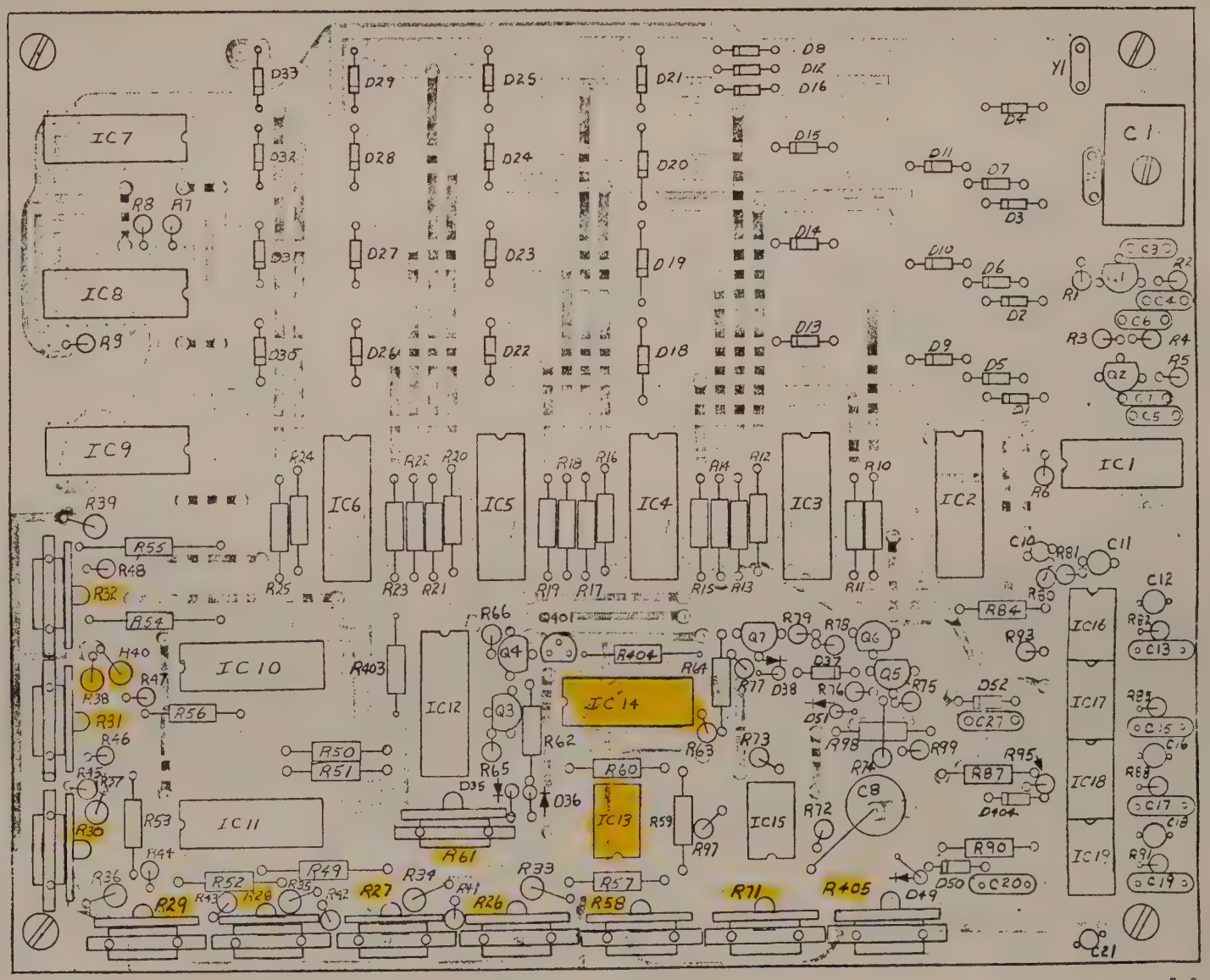
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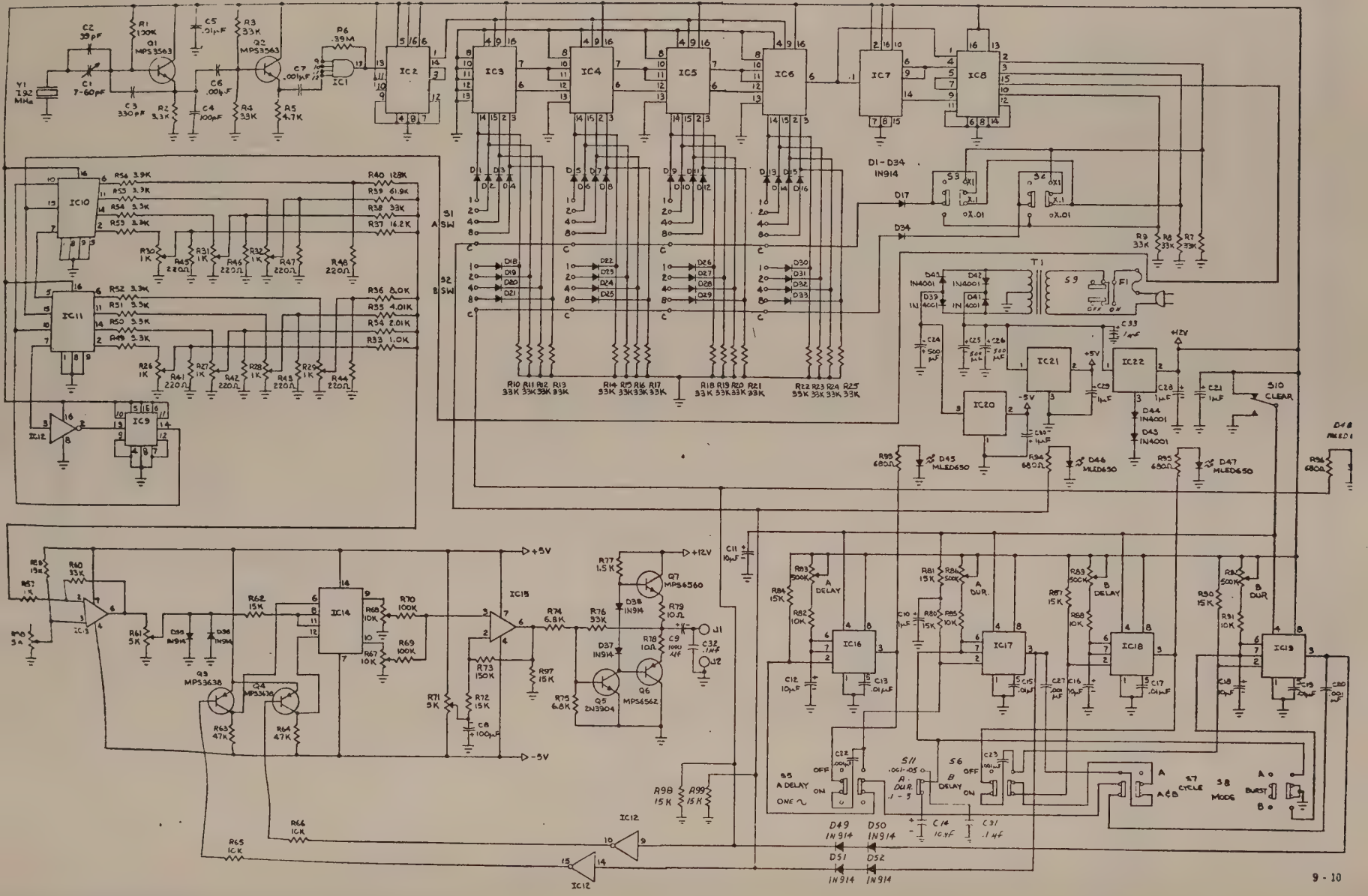


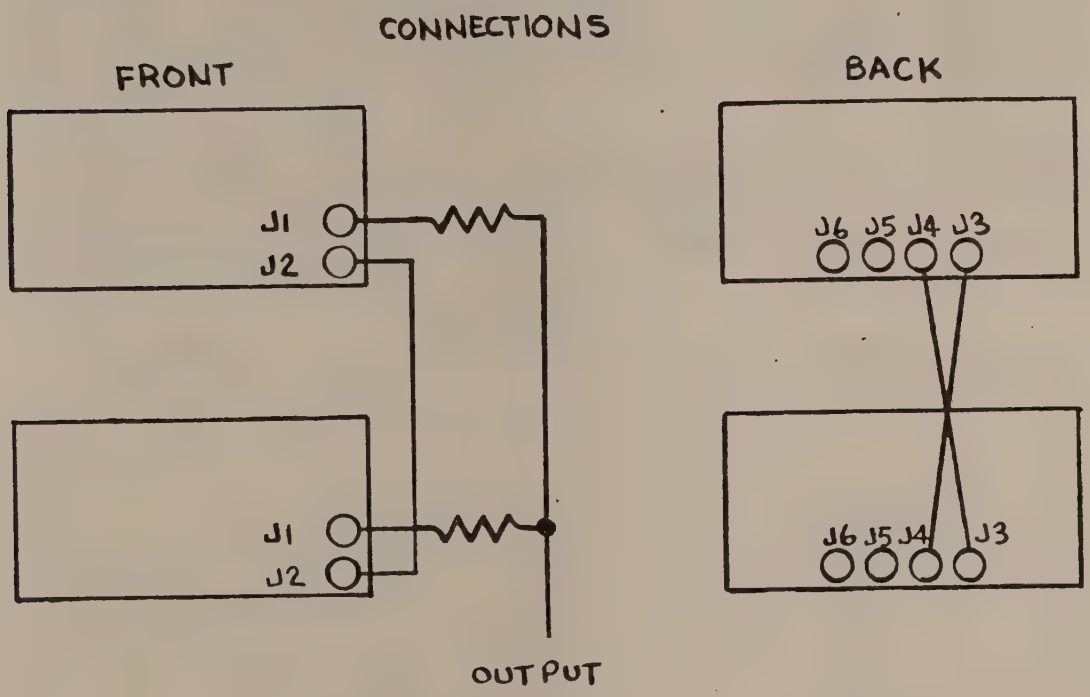
OPTION 1

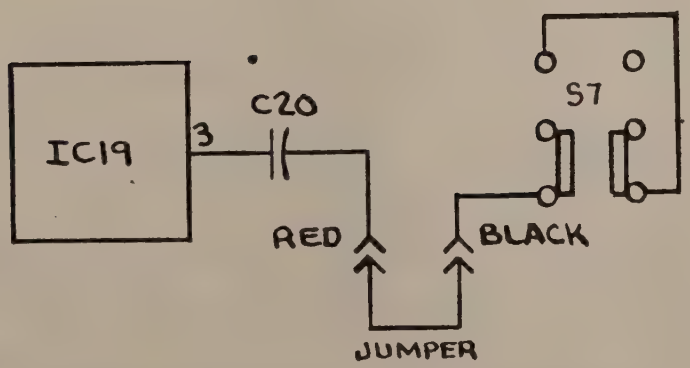
Instructions for using two 2TSG-1 Generators in series (4 sequential):

1. Connect the black posts together on the front panel. Connect the red output posts together through 100 ohms to each unit.

2. On the rear panel, remove the jumper between J3 and J4 on each unit. Connect black J3 of one unit to red J4 of the other unit.

3. Set both mode switches to CYCLE A & B. Determine which unit is to be the master unit. Press the CLEAR button on that unit and hold down until both units are cleared. Upon release of the CLEAR button, the sequence will start on A duration of the master unit.





SCHEMATIC REVISIONS WITH OPTION 1, 4 SEQUENTIAL

OPTION 2

Instructions for using two 2TSG-1 Generators in parallel (2+2):

1. Connect the black ground posts together. Connect the output posts together through 100 ohms to each unit.

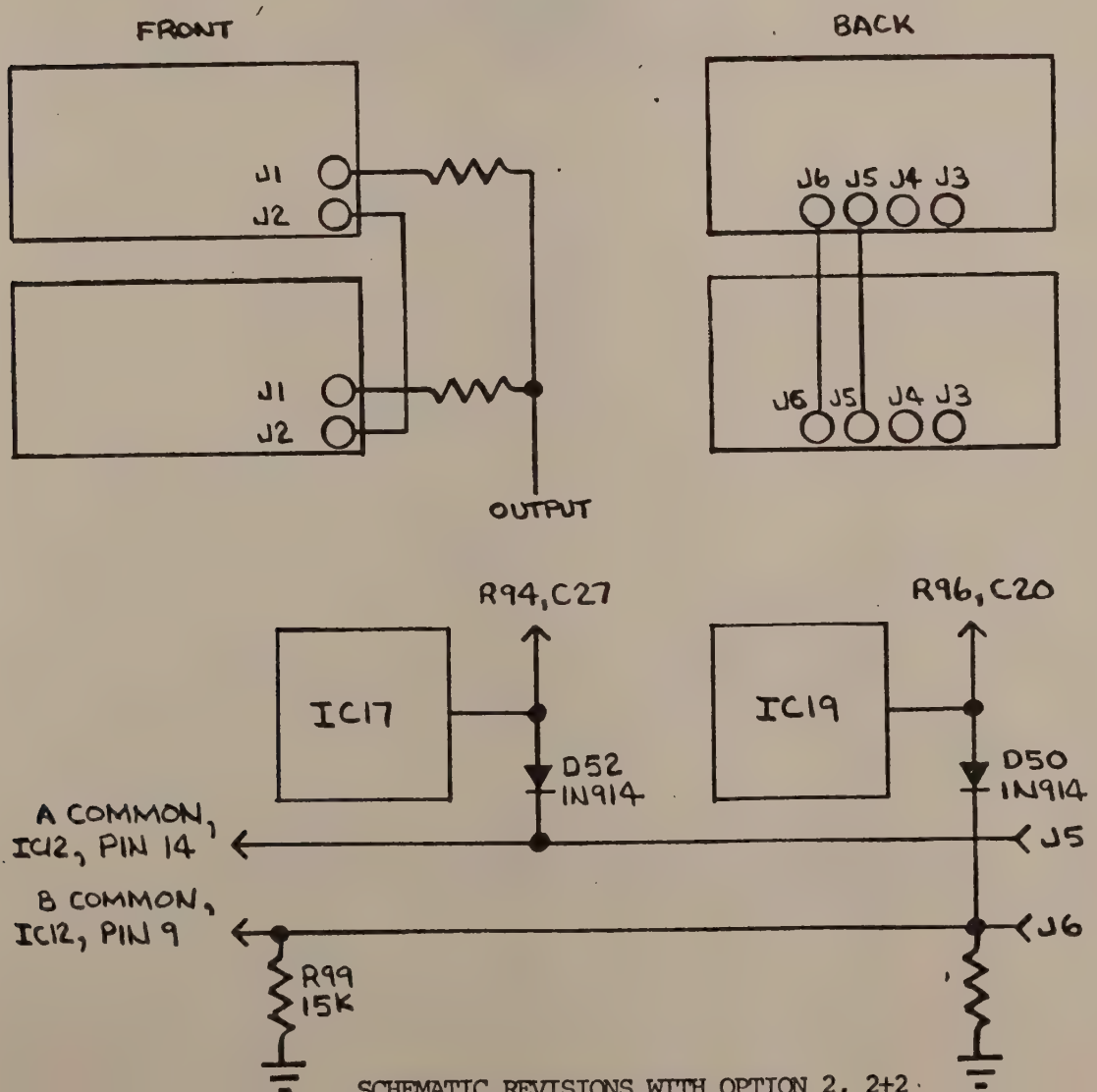
2. On the rear panel, connect J5 of one unit to J5 of the other unit. Connect J6 of one unit to J6 of the other unit.

3. Determine which unit is desired to be the slave unit. On that unit, switch the A delay to the unmarked position, extreme left position as viewed from the back.

4. Turn both units on and let them cycle out. Timing will now be controlled by the master unit. If one cycle operation is wanted, switch the A delay switch of the master unit to the unmarked position. Press the CLEAR button momentarily. Upon release, the sequence will begin on A duration and complete one cycle. Note that the indicator lights on the slave unit do not turn on.

5. When setting levels for deviation, the following procedure may be helpful:
   A. Set the master unit to CONT. A, turn the A LEVEL of the slave unit fully CCW.
   B. Adjust the master A LEVEL to half the desired output.
   C. Bring the slave A LEVEL up until the full desired output is reached.
   D. Repeat the above for B.

CONNECTIONS

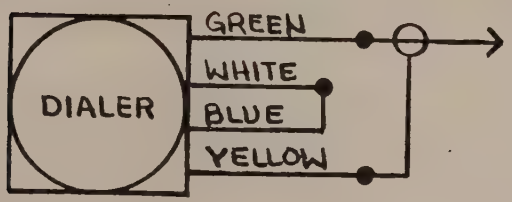


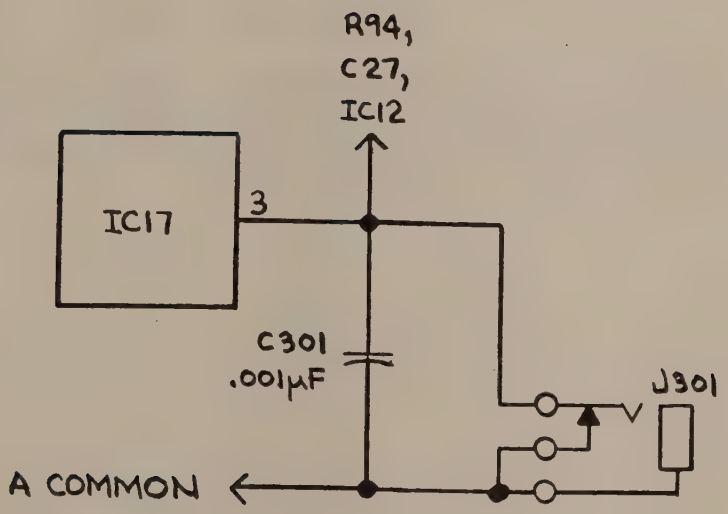
SCHEMATIC REVISIONS WITH OPTION 2, 2+2

OPTION 3

Operating procedure for using Option 3, Telephone Dialing:

1. Adjust the A decades and range switch to the desired frequency, 2805, 1500, etc.
2. Set the Mode switch to A CONT.
3. Plug the dialing mechanism into the jack on the left panel of the generator. Using the plug provided, see below for wiring to the dialer.





SCHEMATIC REVISION WITH OPTION 3, TELEPHONE DIALING

OPTION 4

Operating procedure for using Option 4, TX Control:

1. Set the Mode switch to B CONT.

2. Set the Cycle switch to A & B.

3. Set the B Delay switch to ON.

4. Adjust A decades and range switch to the desired first tone.

5. Adjust B decades and range switch to the desired second tone.

6. Adjust A duration for 115ms, fully CCW should be within the system timing tolerance.

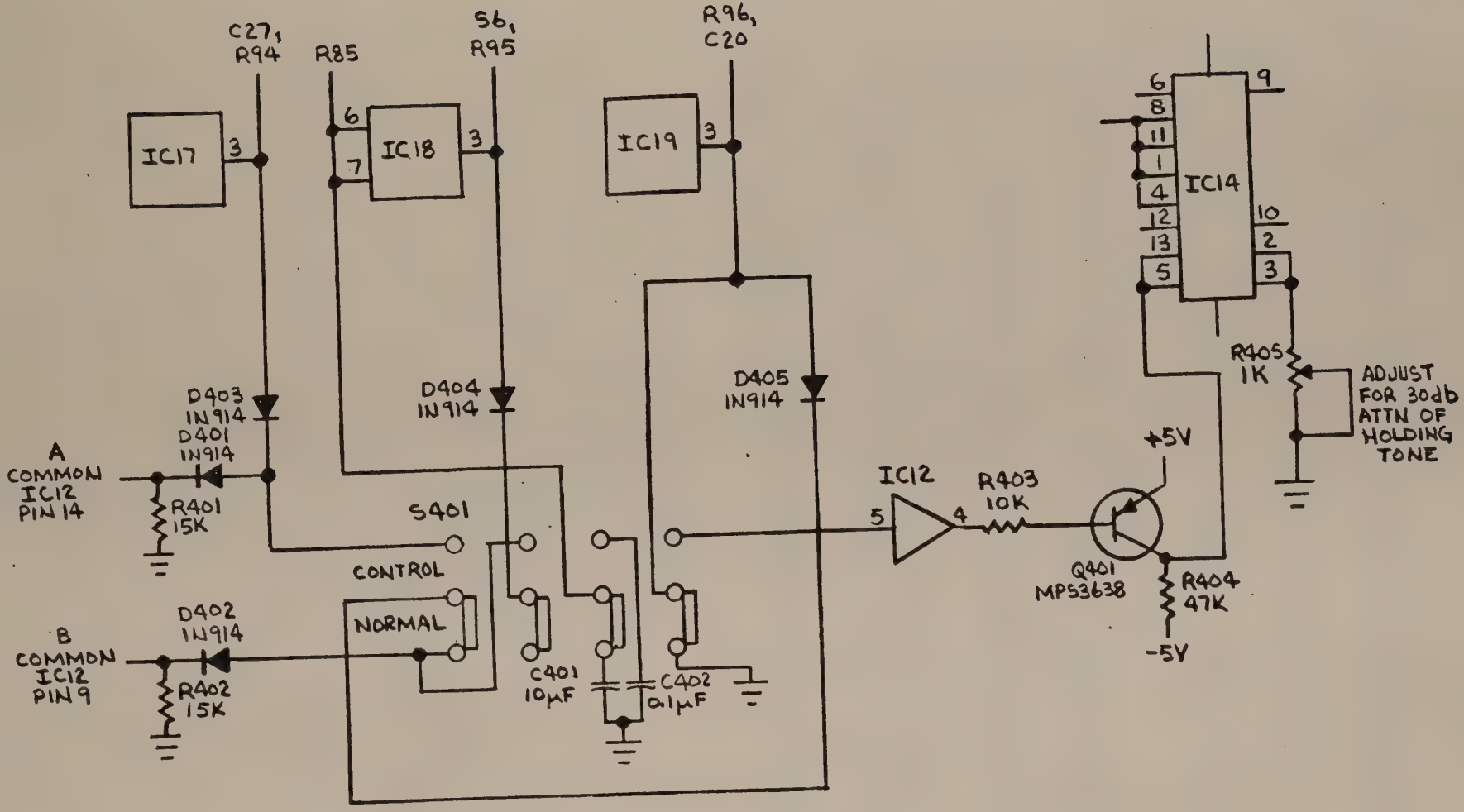
7. Adjust B delay for 40ms. In the control mode, the B delay dial is calibrated .001 to .05 seconds. For 40ms, set to 4. B delay in this case is the duration of the second tone.

8. Set the NORMAL-CONTROL switch to CONTROL. Press the CLEAR button momentarily. Upon release, the sequence will begin. Note that although the sequence finishes with the B duration LED on, in this mode of operation, the generator has actually returned to the first tone (A) frequency at a level reduction of 30 db.

* See Special Note Below.

CAUTION: If you are bridging telephone lines which may have ringing voltages present, a suitable blocking capacitor should be used.

* When Option 4 and Option 6 are combined on the same unit, during the function tone (2nd tone), both B delay and B duration LEDS blink on for the duration of the function tone. When the B delay and B duration LEDS go off, the A duration LED comes on and stays on until the CLEAR button is pressed again.



SCHEMATIC REVISIONS WITH OPTION 4, TX CONTROL

OPTION 6

Instructions for using the 2TSG-1 for generating the MTS, IMTS or 2805 Dial Code:

1. Wire the dial mechanism as shown below.

2. On the rear panel, insert the red plug in the jack color coded red. Insert the black plug in the other jack.

3. Move the switch marked A delay to the unmarked position, extreme left position as viewed from the back.

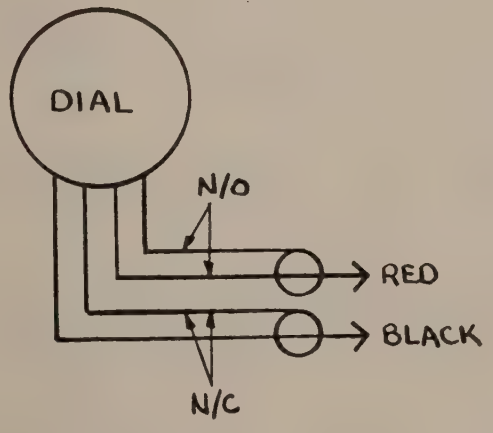
4. Place the Mode switch in the center position.

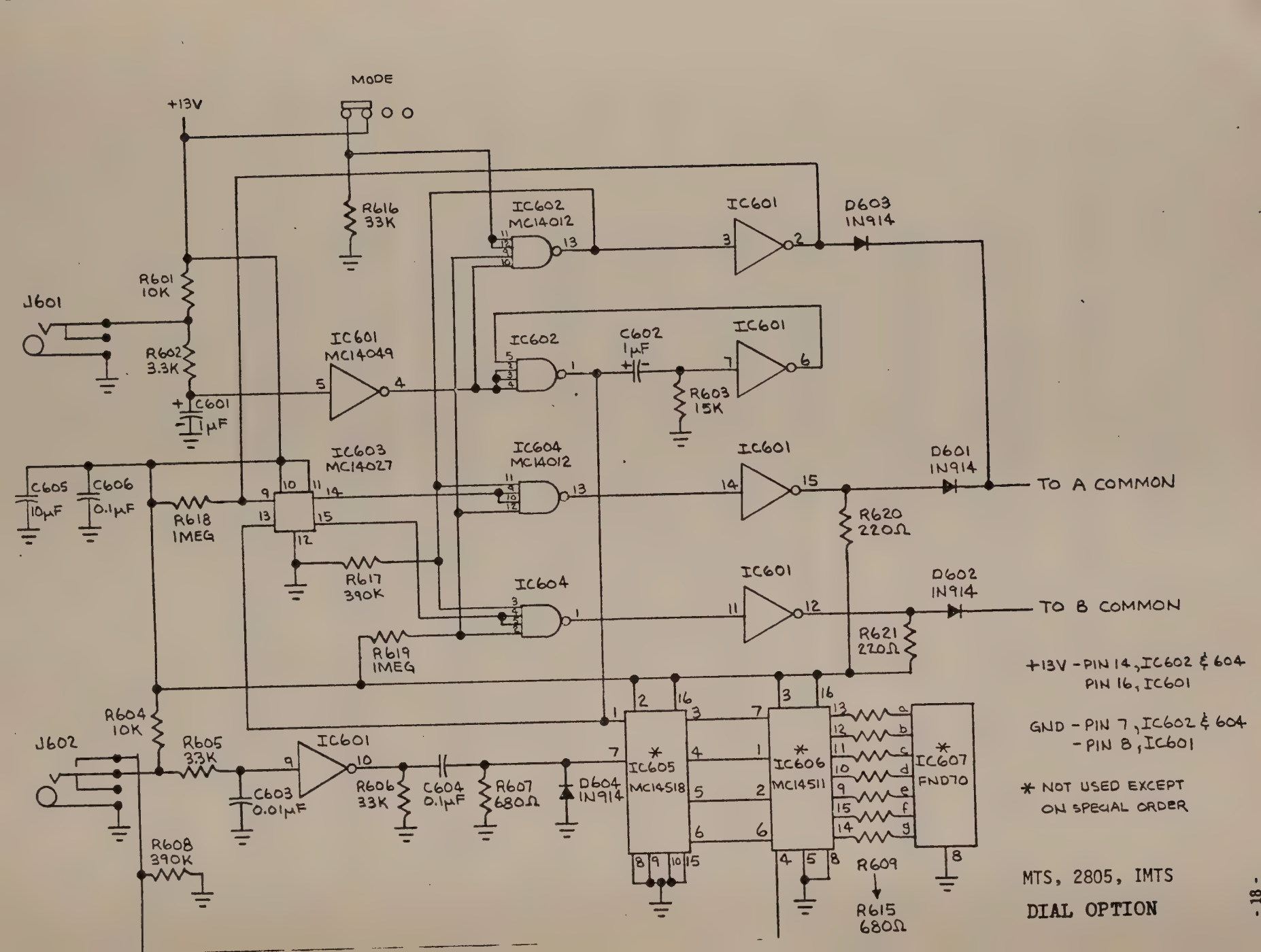
5. Set the A Thumbwheel switches for 1500 and the A Range switch in the X1 position. Set the B Thumbwheel switches to 6000 with the B Range switch in the X.1 position.

6. The unit is now set up to give MTS dial coded output. When cocked, one of the tones will be present on the output. Upon release of the dial, the output will begin to toggle between 600 and 1500Hz.

7. If 2805 pulsed output is desired, move the Mode switch to A, turn B level fully CCW and set the A Thumbwheel switches for 2805. Upon release of the dial mechanism, the output will stay at 2805 except for approximately 40ms for each number as the dial returns.

8. For IMTS leave Mode switch in Cont. A and adjust the B level control to be equal to the A level control, A and B Thumbwheel switches should be set to proper IMTS frequencies.




MODE
+13V
R616 33K
IC602 MC14012
IC601
D603 IN914
R601 10K
J601
R602 3.3K
IC601 MC14049
IC602
C602 1μF
IC601
R603 15K
C601 1μF
IC603 MC14027
IC604 MC14012
IC601
D601 IN914
TO A COMMON
C605 10μF
C606 0.1μF
R618 1MEG
R620 220Ω
R617 390K
IC604
IC601
D602 IN914
TO B COMMON
R619 1MEG
R621 220Ω
R604 10K
J602
R605 33K
IC601
IC605 MC14518
IC606 MC14511
IC607 FND70
C603 0.01μF
R606 33K
C604 0.1μF
R607 680Ω
D604 IN914
R608 390K
R609
R615 680Ω
+13V - PIN 14, IC602 & 604
PIN 16, IC601
GND - PIN 7, IC602 & 604
- PIN 8, IC601
* NOT USED EXCEPT ON SPECIAL ORDER
MTS, 2805, IMTS
DIAL OPTION

OPTION 8

Instructions for using the Digital Tone Squelch Option:

Step 1: Place the first thumbwheel switch in position Zero. Normally, this switch is prevented from going to Zero to assure that maximum resolutio will be achieved when the unit is used as a tone generator.

When this option is added to the 2TSG-1, the B Channel is used as the digital tone squelch generator. In this case, it is necessary to put the mode switch on B continuous.

Step 2: Place the range switch in X1 or X.01 position.

Step 3: Feed the output of the tone generator to the external modulation jack on your signal generator.

Adjust the level control of the tone generator to approximately mid position. Using the modulation level control on the signal generator, adjust for approximately .5 kHz average deviation.

Step 4: Using the 2nd, 3rd and 4th thumbwheel switches, set for the squelch code of the radio under test. For example: If the squelch code is 070, the thumbwheel switches would read 0070.

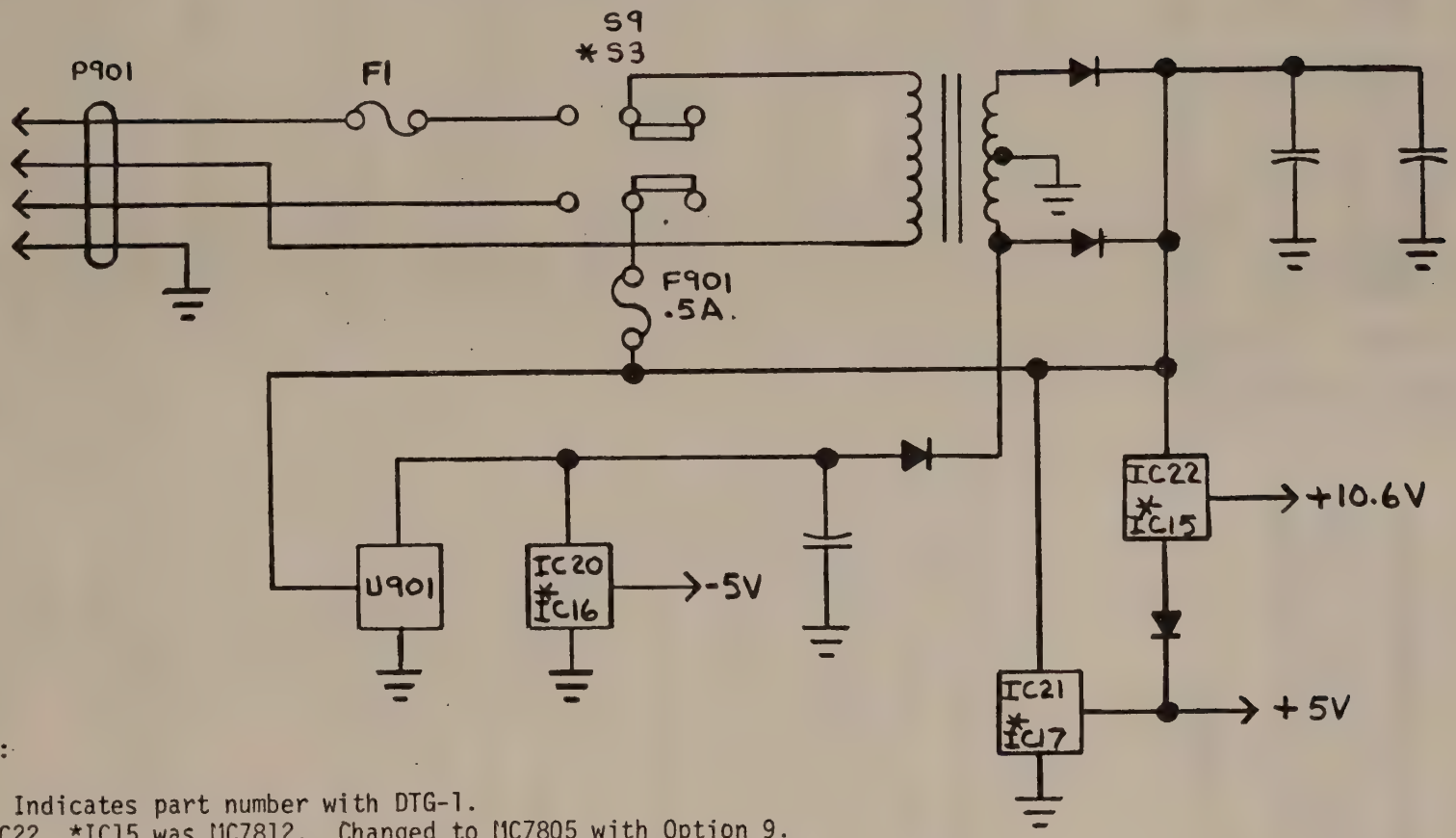
Step 5: Some signal generators have an odd number of modulation gain stages and therefore invert the modulation pattern. If your receiver does not open using the above procedures, place the range switch in the X.1 position.

Step 6: When signal tracing in the receiver circuit, it is helpful to use the sync output of the tone generator to trigger your oscilliscope. The sync output is a pulse of approximately 50 usec duration occuring at the beginning of each 23 bit word.

NOTE: If you are injecting the 23 bit word into a high impedance audio stage, it may be necessary to use a small coupling capacitor between the output of the tone generator and the input of the circuit under test.

Step 7: When returning to normal tone generator operation, it is necessary only to move the 1st thumbwheel switch away from Zero. This automatically programs the range switch to act as a scaler.

Schematic Revisions for Model 2TSG-1 and Model DTG-1
with Option 9 (AC/DC Operation)



NOTES:

1. * Indicates part number with DTG-1.
2. IC22, *IC15 was MC7812. Changed to MC7805 with Option 9.
3. IC10, *IC9 was MC14510CP. Changed to 4510PC with Option 9.
4. Components not affected by this change but shown above are not labeled.

AUTOMATED INDUSTRIAL
ELECTRONICS CORPORATION
P. O. BOX 161 - BATESBURG, S. C. 29006
TELEPHONE (803) 532-5964
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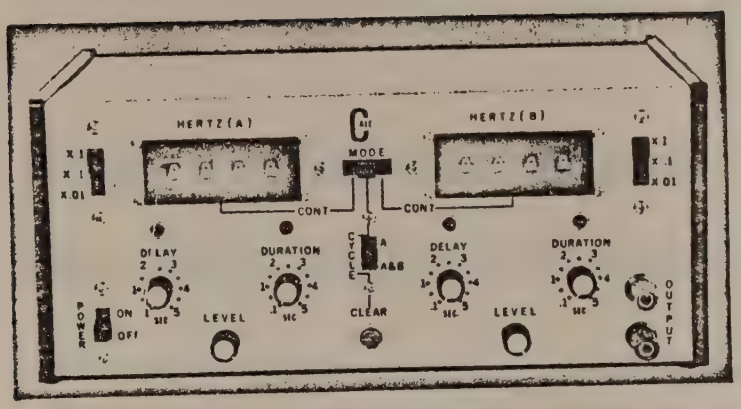

Two Tone Generator

Model 2TSG-1

SPECIFICATIONS:

1. FREQUENCY, 3 decades
   10Hz — 99.99Hz (.01Hz resolution)
   100Hz — 999.9Hz (.1Hz resolution)
   1000Hz — 9999Hz (1Hz resolution)
2. ACCURACY,
   +or— 10ppm at 25 degrees centigrade
   +or— 50ppm over the range 0 to 50 degrees centigrade
3. OUTPUT,
   Sine wave with less than 3% THD (Typically 1.5%) adjustable between .002 VRMS and 2.5 VRMS across 600 ohms
4. Delay between tones, adjustable between .1 second and 5 seconds. One or both delays can be switched to zero.
5. Duration of tones, adjustable between .1 second and 5 seconds. A duration can be switched to give a range of .001 seconds to .05 seconds.
6. TIMING CONTROL ACCURACY, within 20% of setting.
7. Power Requirements, 115 VAC 50-60Hz
8. SIZE, 4 9/16" high, 10 3/16" wide, 6 9/16" deep
9. MODES AVAILABLE:
   Single tone continuous (A Cont.) or (B Cont.).
   Single tone burst (Cycle A only).
   Two tone burst sequential (Cycle A & B).
   Two tone burst sequential with delay between A & B (A delay off).
   Two tone burst sequential with delay between both tones.
   Two tone burst sequential with both delays off.
   One cycle operation activated by clear button.
   * Two tone simultaneous sequential (two units required)
   * 4 tone sequential (two units required)
   * Tone pulse dialing
   * Transmitter control timing

   * Options required with basic unit, see options available.
10. WEIGHT, Approximately 5 pounds
11. WARRANTY, Complete 3 Years

OPTIONS AVAILABLE:

1. Sequence modification so that two units can be used in a 4 sequential mode.
2. Sequence modification so that two units can be used in a 2+2 sequential mode.
3. Telephone dialing so that the A. Cont. mode can be used with a standard telephone dialer.
4. Tone remote control sequence.
5. Special time duration of any tone or delay. Specify desired time.
6. MTS / 2805 Dial Code.
7. Ratchet type lever switches to replace standard thumbwheel switches.
8. Digital tone squelch, 23 bit word generator.
9. AC / DC Operation.
10. BNC Output Connector.

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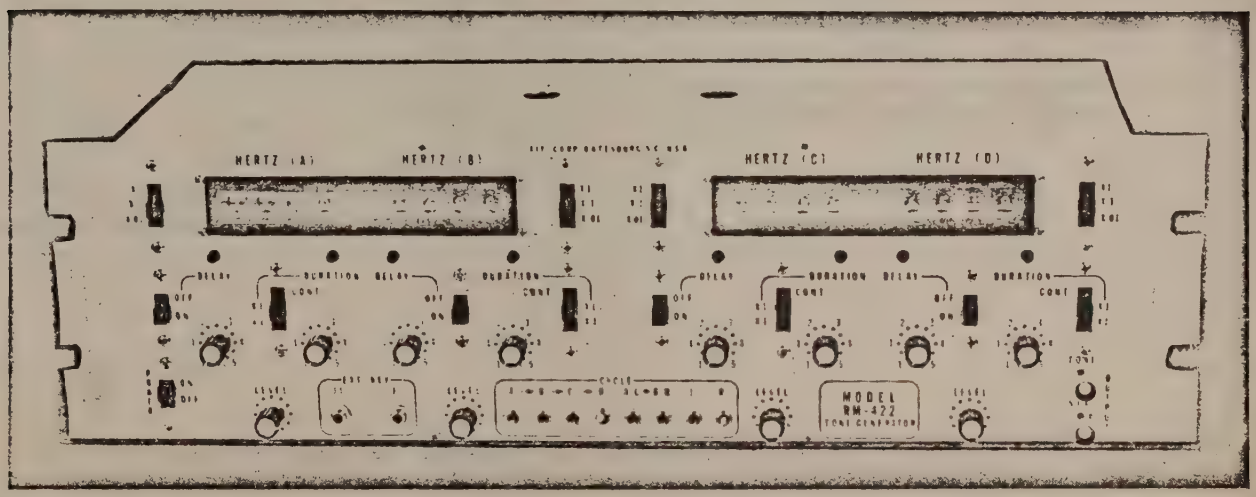
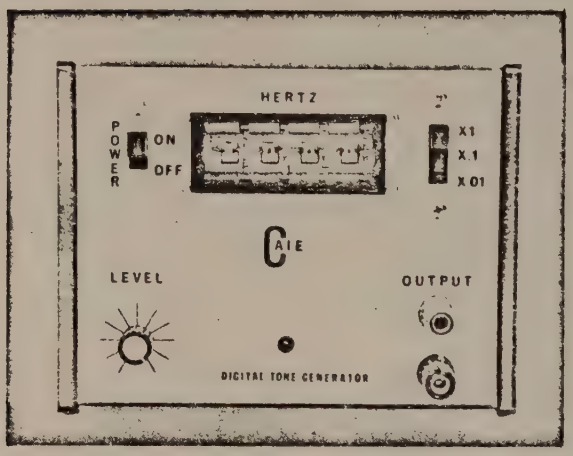
Model RM-422 Rack Mount
Four Tone Sequential Generator



SPECIFICATIONS

1. FREQUENCY, 3 decades
   10Hz - 99.99Hz (.01Hz resolution)
   100Hz - 999.9Hz (.1Hz resolution)
   1000Hz - 9999Hz (1Hz resolution)
2. ACCURACY,
   + or — 10ppm at 25 degrees centigrade
   + or — 50ppm over the range 0 to 50 degrees centigrade
3. OUTPUT,
   Sine wave with less than 3% THD (Typically 1.5%) adjustable between .002 VRMS and 2.5 VRMS across 600 ohms
4. Delay between tones, adjustable between .1 second and 5 seconds. All delays can be switched to give a range of .01 seconds to .5 seconds.
5. Duration of tones, adjustable between .1 second and 5 seconds. Durations can be switched to give a range of .01 seconds to .5 seconds.
6. TIMING CONTROL ACCURACY, within 20% of setting.
7. Power Requirements, 115 VAC 50-60Hz
8. MODES AVAILABLE
   Single tone continuous
   A, B, C or D Cont.
   Single tone burst (Cycle A only).
   Two tone burst sequential (Cycle A and B).
   Three tone burst sequential (Cycle A, B and C).
   Four tone Burst sequential (Cycle A, B, C and D).
   One cycle operation activated by repeat switch or continuous cycle.
   Two simultaneous tones continuous.
   Two simultaneous tones burst.
   Two simultaneous tones (A & C) and two simultaneous tones (B & D) sequential.
9. SIZE, 5¼" x 19" x 6¼"
   (Standard Rack Mount)
10. WEIGHT, Approximately 6 pounds.
11. WARRANTY, Complete 3 years.

Model DTG-1 Audio Frequency Generator



- Select any frequency from 10Hz to 9999 Hz with resolution to .01 Hz
- Sine wave output with less than 3% distortion
- Crystal controlled accuracy to +/- 10 ppm
- Optional 23 bit word generator available for servicing Digital Tone Squelch Systems.

DESCRIPTION

The DTG-1 is a single tone generator using much of the same circuity as our well accepted two tone generator Model 2TSG-1. The applications of the DTG-1 are for those shops engaged in CTCSS work, tone remote control, or any other application requiring a precision audio signal source.

DETAIL SPECIFICATIONS

DTG-1

1. FREQUENCY, 3 decades
   10 Hz - 99.99 Hz (.01 Hz resolution)
   100 Hz - 999.9 Hz (.1 Hz resolution)
   1000 Hz - 9999 Hz (1 Hz resolution)

2. ACCURACY,
   +or— 10 ppm at 25 degrees centigrade
   +or— 50 ppm over the range 0 to 50 degrees centigrade

3. OUTPUT,
   A. Sine wave with less than 3% THD (Typically 1.5%)
   B. Level adjustable between approximately .002 VRMS and 2.5 VRMS across 600 ohms
4. Overall accuracy is determined by a crystal controlled oscillator which is set to its operating frequency with a trimming control.
5. Power requirements, 115 VAC 50—60 Hz
6. SIZE, 4 9/16" high, 5 1/2" wide, 6 9/16" deep
7. WEIGHT, Approximately 4 pounds.
8. WARRANTY, Complete 3 years.

MODEL 2TSG–1 TWO TONE GENERATOR ----$407.00 (Complete 3 Year Warranty)

Options:

1. Sequence modification so that two units can be used in a 4 sequential mode. No Charge.
2. Sequence modification so that two units can be used in a 2 + 2 sequential mode. No Charge.
3. Telephone dialing so that the A cont. mode can be used with a standard telephone dialer. $6.75.
4. Sequence modification for using a single unit in the mode: 1st tone for 115ms, 2nd tone for 40ms, return to 1st tone continuous at a level reduction of 30 db. $16.25.
5. Special time duration of any tone or delay. Specify desired time. No Charge.
6. MTS/2805 Dial Code. $32.25.
7. Ratchet type lever switches to replace standard thumbwheel switches. Standard-----No Charge.
8. Digital tone squelch, 23 bit word generator. $68.00.
9. AC/DC operation. $27.00.
10. BNC output connector. No Charge.
11. Locking nuts to replace delay, duration and level control knobs. No Charge.
12. Output fuse protection. No Charge.
13. Relay contact output. $26.50.
14. IMTS added to Option 6 above. No Charge.

Accessories:

1. Leather carrying case. $51.50.
2. Test cable, one meter long, five way binding post to alligator clips. $7.75.
3. Test cable, one meter long, BNC to alligator clips. (For Option 8 and Option 10 units.) $7.75.

MODEL DTG–1 AUDIO FREQUENCY GENERATOR --- $200.00

Options:

3. Same as described above for Model 2TSG-1.
8. Same as described above for Model 2TSG-1.
9. Same as described above for Model 2TSG-1.
11. Locking nut to replace the level control knob. No Charge.
12. Same as described above for Model 2TSG-1.

Accessory:

1. Leather carrying case. $51.50.

MODEL 5TSG-1 FIVE TONE GENERATOR --- $623.00

MODEL M2TSG–1 TWO TONE SEQUENTIAL GENERATOR WITH DIGITAL TONE SQUELCH ENCODE AND DECODE --- $735.00.

MODEL TCM–34B TONE MONITOR --- $430.00. LEATHER CARRYING CASE --- $51.50

MODEL GC–1 GENERATOR/COUNTER --- $346.00. LEATHER CARRYING CASE --- $51.50.

MODEL RM–422 FOUR TONE RACK MOUNT GENERATOR --- $974.00.

Ross Distributing Corp.
P.O. Box 5003
Covina, CA 91723
(213) 967–2402

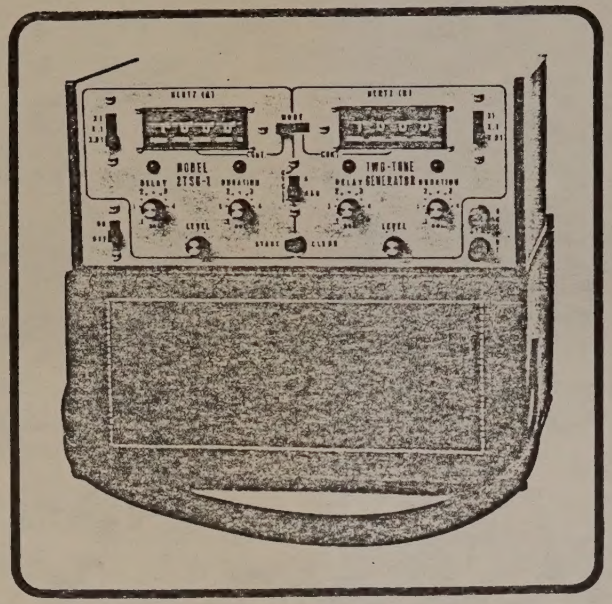
Effective: 2–1–80

Close the GENERATION GAP!

with The 2TSG-1

$407.00

It took AIE to close the "gap" by designing a great generator at an affordable price. Just ask any one of our many customers about the dependability and quality of the 2TSG-1, a two tone sequential generator capable of producing very accurate low distortion sequential tones. Model 2TSG-1 is shown here with its optional leather carrying case.



Frequency—
10.00-99.99 Hz (.01 Hz increment)
100.0-999.9 Hz (.1 Hz increment)
1000-9999 Hz (1 Hz increment)

Accuracy— ±.001%, crystal controlled

Output—Up to 2.5 volts RMS across 600 ohms

Distortion—Less than 3%

Tone Delays—Adjustable from .1 sec. to 5 sec. Rear panel switch allows zero delay

Tone Durations—Adjustable from .1 sec. to 5 sec. A duration can be switched to .001-.05 sec. range.

The 2TSG-1 can now be provided with an option to generate the 23 Bit Word used in digitally coded tone squelch systems.

For more information on this and other equipment, please contact:

AIE

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P. O. Box 161 Batesburg, S. C.
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